Serial No. 10/010,645 Amdt. dated November 18, 2004 Reply to the Office Action of August 19, 2004

## IN THE CLAIMS:

All claim amendments and cancellations are made without prejudice or disclaimer.

Please amend the claims as follows:

1-48. (Canceled).

49. (Currently amended) A method for delivering a nucleic acid of interest to a mesenchymal stem cell, said method comprising:

culturing a mesenchymal stem cell in vitro; and

infecting theadministering to a mesenchymal stem cell, in vitro, with a recombinant adenovirus of subgroup C, said recombinant adenovirus comprising the nucleic acid of interest and further comprising a fiber protein of a second adenovirus serotype associated therewithin the recombinant adenovirus capsid, wherein the fiber protein provides a tissue tropism for mesenchymal stem cells and the second adenovirus serotype is selected from the group consisting of serotype 16, serotype 32, serotype 35, serotype 40-S, and serotype 51; and

infecting the mesenchymal stem cell with the recombinant adenovirus.

- 50. (Canceled).
- 51. (Previously presented) The method according to claim 49, wherein said adenovirus serotype of subgroup C is adenovirus serotype 5.
- 52. (Previously presented) The method according to claim 49, wherein the second adenovirus serotype is serotype 16.
- 53. (Previously presented) The method according to claim 49, wherein the second adenovirus serotype is serotype 35.

54. (Currently amended) A method for delivering a nucleic acid of interest to a mesenchymal stem cell *in vitro*, said method comprising:

## culturing the mesenchymal stem cell in vitro; and

administering to ainfecting the mesenchymal stem cell in vitro with a recombinant adenovirus of subgroup C, said recombinant adenovirus comprising a nucleic acid of interest and further comprising a fiber protein in its capsid, wherein the fiber protein comprises a knob region of a fiber protein from an adenovirus serotype has a tropism for the mesenchymal stem cell and the tropism determining part of the fiber protein is selected from the group consisting of serotype 16, serotype 32, serotype 35, serotype 40-S, and serotype 51, wherein the knob region provides the recombinant adenovirus with the tropism for the mesenchymal stem cell; and

infecting the mesenchymal stem cell with the recombinant adenovirus.

- 55. (Previously presented) The method according to claim 54, wherein said adenovirus serotype of subgroup C is adenovirus serotype 5.
- 56. (Previously presented) The method according to claim 54, wherein the fiber protein is serotype 16.
- 57. (Previously presented) The method according to claim 54, wherein the fiber protein is serotype 35.
- 58. (Currently amended) The method according to claim 54, wherein the tropism determining part of the fiber protein comprises a knob region is from adenovirus serotype 35.
- 59. (Currently amended) The method according to claim 54, wherein the tropism determining part of the fiber protein comprises a knob region is from adenovirus serotype 16.

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- 60. (Previously presented) The method according to claim 55, wherein the fiber protein comprises a tail region of adenovirus serotype 5.
- 61. (Currently amended) The method according to claim 60, wherein the tropism determining part of the fiber protein comprises a knob region is from adenovirus serotype 16.